Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 5. (Cancelled)

6. (Currently Amended) A process for ethylene recovery in a recirculating gas process for preparing vinyl acetate, comprising:

a) reacting ethylene, [[actic]] acetic acid and oxygen in a heterogeneously catalyzed reaction at a pressure of from 1 to 50 bar and a temperature of from 50°C to 200°C in a reactor,

b) separating a product gas stream comprising ethylene, vinyl acetate, acetic acid, water, carbon dioxide and non-reactive gases, and

c) recycling only a portion of ethylene back into the ~~recirculating gas~~ reactor ~~process~~, wherein

d) the product gas stream is fed at system pressure to a recycle gas scrubber charged with acetic acid, and vinyl acetate is removed from the recycle gas, and

e) the vinyl acetate-free recycle gas is subsequently fed to a CO_2 absorption to remove carbon dioxide, and then

f) a portion of the ethylenic recycle gas stream is recycled into the ~~reaction system,~~ reactor without further non-reactive gases being separated; and 1% to 25% by volume of the ethylenic gas stream is discharged without further non-reactive gases being separated, and is reused in one or more processes which consume ethylene, other than processes for preparing vinyl acetate.

7. (Previously Presented) The process of Claim 6, wherein the discharged proportion of the ethylenic gas stream is fed to an oxidation processes for preparing ethylene

oxide, ethylene glycol, acetaldehyde, or acetic acid, or fed to an oxychlorination of ethylene to dichloroethane, or to a direct chlorination of ethylene to dichloroethane.

8. (Previously Presented) The process of Claim 6, wherein the discharged proportion of the ethylenic gas stream is fed to a process for alkylating benzene to ethylbenzene, a process for carbonylation to acrylic acid, to a polyolefin polymerization, to a hydroformylation process to produce propionaldehyde, in the Reppe carbonylation to propionic acid, or to an Alfol process for preparing long-chain primary alcohols.

9. (Previously Presented) The process of Claim 6, wherein step a) is conducted at a pressure in the range of 8 to 12 bar and at a temperature in the range of 130°C to 200°C.

10. (Previously Presented) The process of Claim 6, wherein the vinyl acetate-free product gas contains 60 to 65 weight percent ethylene and 12 to 18 weight percent carbon dioxide, and after CO_2 removal, contains 80 to 83% ethylene and 1 to 4% CO_2.

11. (Previously Presented) The process of Claim 6, wherein 80 to 95% of the ethylenic cycle gas stream is recycled and 5 to 20% is fed to another process consuming ethylene.

12. (New) A process for ethylene recovery in a recirculating gas process for preparing vinyl acetate, comprising:

a) reacting ethylene, acetic acid and oxygen in a heterogeneously catalyzed reaction at a pressure of from 1 to 50 bar and a temperature of from 50°C to 200°C,

b) separating a product gas stream comprising ethylene, vinyl acetate, acetic acid, water, carbon dioxide and non-reactive gases, and

c) recycling only a portion of ethylene back into the recirculating gas process, wherein

d) the product gas stream is fed at system pressure to a recycle gas scrubber charged with acetic acid, and vinyl acetate is removed from the recycle gas, and

e) the vinyl acetate-free recycle gas is subsequently fed to a CO_2 absorption to remove carbon dioxide, and then

f) a portion of the ethylenic recycle gas stream is recycled into the reaction system, without further non-reactive gases being separated; and 1% to 25% by volume of the ethylenic gas stream is discharged without further non-reactive gases being separated, and is reused in one or more processes which consume ethylene, other than processes for preparing vinyl acetate,

wherein the product gas stream separated from the reactor in step b) comprises:

from 60 to 65% by volume of ethylene,

from 12 to 18% by volume of CO2,

from 5 to 8% by volume of ethane,

from 4 to 9% by volume of oxygen,

from 4 to 6% by volume of nitrogen,

from 1 to 2% by volume of argon, and

from 0.5 to 1% by volume of methane.

13. (New) A process for ethylene recovery in a recirculating gas process for preparing vinyl acetate, comprising:

a) reacting ethylene, actic acid and oxygen in a heterogeneously catalyzed reaction at a pressure of from 1 to 50 bar and a temperature of from 50°C to 200°C,

b) separating a product gas stream comprising ethylene, vinyl acetate, acetic acid, water, carbon dioxide and non-reactive gases, and

c) recycling only a portion of ethylene back into the recirculating gas process, wherein

d) the product gas stream is fed at system pressure to a recycle gas scrubber charged with acetic acid, and vinyl acetate is removed from the recycle gas, and

e) the vinyl acetate-free recycle gas is subsequently fed to a CO_2 absorption to remove carbon dioxide, and then

f) a portion of the ethylenic recycle gas stream is recycled into the reaction system, without further non-reactive gases being separated; and 1% to 25% by volume of the ethylenic gas stream is discharged without further non-reactive gases being separated, and is reused in one or more processes which consume ethylene, other than processes for preparing vinyl acetate,

wherein the ethylene recycle stream, following treatment to remove carbon dioxide in step e), comprises:

from 80 to 83 % by volume of ethylene,
from 1 to 4 % by volume of CO2,
from 2 to 4 % by volume of ethane,
from 3 to 5 % by volume of oxygen,
from 3 to 4 % by volume of nitrogen,
from 0.5 to 1 % by volume of argon, and
from 0.2 to 0.4% by volume of methane.

14. (New) The process of claim 12, wherein the ethylene recycle stream, following treatment to remove carbon dioxide in step e), comprises:

from 80 to 83 % by volume of ethylene,
from 1 to 4 % by volume of CO2,
from 2 to 4 % by volume of ethane,
from 3 to 5 % by volume of oxygen,
from 3 to 4 % by volume of nitrogen,
from 0.5 to 1 % by volume of argon, and
from 0.2 to 0.4% by volume of methane.